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The
Chilcotin
Plateau

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The Chilcotin Plateau

Chilcotin Plateau reaches from where the spurs of the Coast Range reach westward from the upper part of Big Creek across Taseko Lake to Chilko Lake and Tatlayoko Lake—the Coast Range thence swinging north-westward—covering north-western Lillooet Land Recording Division, the north-eastern portion of Vancouver Land Recording Division, and south-west of Cariboo Land Recording Division. Northward it merges into the Blackwater and Nechako Plateaux, which extend north toward the Omineca Mountains north of Nation Lakes. The Chilcotin drainage-basin, which occupies the greater part, covering a total area of over 7,000 square miles, and that of the headwaters of the Homathko, Klinaklini, Dean, and Bella Coola Rivers, which head in the westerly part of the plateau and cut through the Coast Range to the sea, is largely a wide undulating plateau, much open and prairie-like, diversified with patches of woodland and covered with good growth of grass. Low ridges with slow even ascent and slope divide most of the drainages. Much of the plateau region in the easterly part is from 3,100 to 3,600 feet in elevation and in the west the undulating upland increases in elevation in parts to about 4,500 feet, the greater portion being above 3,500 feet. The rivers in their upper parts are little below the plateau surface—to the vicinity of the 124th meridian they are at elevations of 2,800 to 3,500 feet—but eastward have eroded deeply. The troughs have been cut down deeply, the Chilcotin at its junction with the Fraser being 2,200 feet below the upland. Bench lands border the rivers in places; in others the slope from the upland is in tiers of narrow terraces; in others steep and broken grassy slopes. In the main the valleys are narrow, and few meadows are found on the main streams, but are numerous on the tributaries. Considerable areas are covered with jack-pine and portions have been burnt, the fires removing the soil-covering in places. Muskegs are numerous, but usually small in area. The whole area is well watered, rivers being seldom over 10 or 15 miles apart, and there are numerous lakes and ponds. Shallow ponds occur wherever depressions are found, and as these dry, meadows form. The whole country is covered with glacial drift, sloping eastward. The ridges are gravelly and the soil is

sandy loam to gravelly loam, in places interspersed with stones and boulders. The surface soil is usually shallow on the upland and the subsoil hard and compact.

The region is mainly in the Dry Belt and precipitation is usually low. Altitude varies in the valleys eroded below the general plateau surface, which ranges in the easterly part from 3,100 to 3,600 feet, sloping up gently toward the west, where elevations reach 4,000 to 4,200 feet, with ridges slightly higher. The valley of the Fraser is 2,200 to 2,500 feet below the plateau upland, and the valley of the Chilcotin is similarly deep below the upland in the lower part. The upper waters have valleys at much higher elevations. Chilko Lake, at the head of the Chilko branch, lies at 3,860 feet; Tatla Lake, on the Chilanko branch, at 2,980 feet. Tatlayoko Lake, at headwaters of the Homathko, is at 2,723 feet. The regions of lowest altitudes along the Fraser are arid and covered with sagebrush. Annual precipitation is about 10 or 12 inches. Big Creek, altitude 3,100 feet, has 12 inches, a third in form of snow. Highest temperatures are about 102° and lowest —50°. Records at Big Creek show a mean annual temperature of 37°, with winter mean of 17° and summer mean of 57°.

Roughly, about 900 square miles in this basin carries grass or very open forest and there are wide stretches of range. Cattle-raising is the chief industry. Open lands afford winter grazing when the snow is not deep, but generally winter feeding is required for several months. Many natural meadows supply hay for winter feed. Forage-crops are raised mainly by irrigation on the benches near the Fraser, Chilcotin, and in other valleys.

Ranching is mainly confined to the river-valleys and vicinity, with home ranches on benches of the valleys. In Chilcotin Valley to Alexis Creek all kinds of grains and vegetables are successfully grown, and farther up the river, where elevation reaches 3,300 feet, hay and oats are grown, potatoes depending upon a favourable season. Many meadows exist on which large crops of wild hay are cut for winter feed, and with this supply available and ample range for their stock many do not raise forage-crops.

The 52nd parallel divides the Lillooet and Cariboo Land Recording Divisions and the 124th meridian separates both from the Vancouver Land Recording Division. Pre-emptions taken up west of the 124th meridian are recorded at the office of the Government Agent at Vancouver; those eastward, south of the 52nd parallel, being in Lillooet

Division, are recorded at the office of the Government Agent at Clinton, on the Pacific Great Eastern Railway; and those north of the 52nd parallel, east of the 124th meridian, being in Cariboo Division, are recorded at the office of the Government Agent at Quesnel, on the Pacific Great Eastern Railway. The surveyed lands are shown on Pre-emptors' Map 3F, Chilcotin Sheet, which covers the area west of a line drawn north and south through the junction of Big Creek and Chilcotin River—surveys east of that line being shown on Pre-emptors' Map 3G, Quesnel Sheet—to 20 miles west of the 124th meridian, between Chilko and Tatlayoko Lakes on the south to Euchiniko Lakes on the north. The easterly part includes the Nazko River basin. Westward of this area surveys are shown on the official tracings, blue-prints of which can be obtained on application at small cost.

Access is by road from the Pacific Great Eastern Railway. Hanceville, an old-time ranching settlement on the Chilcotin, 75 miles in direct line westward from Williams Lake, on the Pacific Great Eastern Railway, and 115 miles from Clinton by road, has a weekly stage service from Clinton and from 150 Mile and Williams Lake. Three general stores are located here, and the post-office has telegraph and telephone service. Local population is about twenty-five. Some ranches which raise cattle and horses have been operated on the benches near the Chilcotin hereabout for about twenty-five years. The Clinton Road, which is joined en route by roads from Lough Raymond and 70 Mile on the railway, crosses the Fraser by a steel bridge near Churn Creek and runs north-west to Hanceville, with a branch to Big Creek Post-office, 14 miles south; also connected by a road north to Hanceville. The road from 150 Mile and Williams Lake runs south-west to the Fraser and along the benches above the river on the east to the Chimney Creek Bridge, and crosses westward to Hanceville via Riske Creek.

From Hanceville the main road follows up the Chilcotin to Alexis Creek Post-office, where, in addition to store, post-office, and telegraph and telephone office, a hospital is located, and a branch road runs up Alexis Creek and through the Nazko basin to the Blackwater—Quesnel Road. From Alexis Creek the main road follows up the Chilcotin to Redstone Post-office, where a store serves a few white settlers, who engage in stock-raising, and a number of Indians. From Redstone, which is located near the junction of the Chilanko, about 103 miles from Williams Lake, a road branches 25

miles north-west to Chezacut Post-office, near the junction of the Chilcotin and Clusko, the post-office of a stock-raising community of about twenty-five.

From Redstone the main road runs up the Chilanko to Chilanko Forks Post-office, 23 miles west, depot of about twenty settlers who engage in stock-raising and trapping. Thence the road runs along the south-east of Tatla Lake, with another road on the opposite shore, to Tatla Lake Post-office, near the upper end of the lake, which lies at elevation of 2,980 feet. This is the centre of a small ranching and mining population. From Tatla Lake the road crosses westward across the plateau at the head of Homathko River to One Eye Lake, at the head of Klinaklini River, and thence follows up McClinchy Creek, a tributary, and north-west across the plateau to the upper part of Dean River, down which it follows to Anahim Lake, and, swinging around the lake, crosses south-west to the Hotnarko, one of the forks of Bella Coola River. A short break covered by a trail connects with the road which follows down Bella Coola River to the town of Bella Coola, at the mouth of Burke Channel.

Land for agriculture in the Chilcotin country is limited almost entirely to the river-valleys. W. G. McElhanney, who made surveys in vicinity of the 124th meridian, reviewing the area, said: "Along the Chilcotin River to Alexis Creek all kinds of grain and vegetables can be grown. Farther up the river, where elevation reaches 3,300 feet, I believe hay and oats could be successfully grown. Potatoes require a favourable season. Small garden-stuff was seen grown at Sherringham's. Settlers in here depend entirely on ranching, and as yet have not attempted growing timothy or grain, though they believe it would be possible. Potatoes seem to do better on benches a little above river-levels. Near the Nazko River, in valley land at about the same elevation as the Chilcotin, Blackwater, and Euchiniko Rivers, I saw splendid oats, barley, millet, brome-grass, and all kinds of garden produce. This was the result of experimenting with samples sent out by the Government. I did not see anywhere grain grown on jack-pine benches, and do not consider that the greater part of this country is suitable for agriculture on account of frosts, elevation, and poverty of soil.

"With increased knowledge of the principles of scientific dry-farming, there are portions that might possibly be profitably cultivated. So little is known of the results of dry-farming in this portion of the country that it is difficult to judge whether it could be profitably carried out or not. I might mention

that on a high bench near the Telegraph Trail at Chilako River, elevation 3,500 feet, I saw a bunch of clover a foot high growing quite green on October 27th. From conversation with settlers I find there is a tendency to neglect experimenting with farming as long as they can find wild hay and range for their stock, stock-raising being more profitable.

"Ranching is confined largely to the river-valleys, the meadows adjoining the rivers furnishing the winter feed and the slopes of the river the summer range. There is very little grass growing among the timber, and what there is of poor quality, so that this industry is limited in its extent. If the timber were removed and grass sown, it would be an ideal range country, as water is plentiful."

Settlement west of Alexis Creek, which has about fifty people in its vicinity, mostly engaged in ranching, and a considerable Indian population, is small and scattered. Stock-raising is the principal industry.

That portion of Chilcotin basin and plateau east of the 124th meridian is dealt with in pamphlets describing the Cariboo and Northern Lillooet Division. Settlement west of the 124th meridian is mostly engaged in cattle-raising, utilizing the ranges for summer feed and cutting hay on outlying meadows to supplement crops grown on various home ranches for winter feed. Much of the upland is too high for cultivation of crops, but has much range land, and wild-hay meadows are found in many depressions. Settlement is mostly confined to the river-valleys. The lower portion of the plateau, notably in Hanceville and Alexis Creek regions, provides pasture for a large number of cattle and there are some large stock-ranches.

Chilcotin River, to which greater part of the area drains, is over 145 miles long, with many branches headed in the westerly part of the plateau—that which retains the name Chilcotin gathering its waters from a number of small creeks draining small lakes on the high plateau, roughly 50 miles east from the Coast Range, at altitude ranging from 3,500 to 4,200 feet, an undulating area with many low ridges. The Chilcotin flows little below the upland to Punkutlaenkut Lake, and thence westerly to Chezacut, near where the Clusko comes in from the north and the river runs south-west and south to Chilcotin Lake, 3,260 feet, being joined before reaching the lake, to which streams drain from the plateau to the west by Clinchintampan River, heading in some lakes in a basin at head of Nazko River and Alexis Creek. The Chilcotin runs south-west

in a deepening valley and is joined by the outlet of Puntzi Lakes, which lie at 3,190 feet, and at Redstone by Chilanko River, which heads on a low narrow divide from headwaters of Dean River near Abuntlet Lake, 3,440 feet, and flows eastward through the plateau with deepening valley to Chilanko Forks, where the outlet of Tatla Lake, 2,980 feet, 21 miles long, joins and the river continues east to join the Chilcotin at Redstone.

Chilko River, with Taseko River as its main tributary, joins about midway between Redstone and Alexis Creek, furnishing considerable volume. The Chilko drains from Chilko and Choelquoi Lakes at 3,880 and 3,850 feet. At the confluence the Chilcotin is about 200 feet below the general surface and the valley widens, with benches, and deepens. Alexis Creek, heading in a basin with many lakes forming a divide from the Nazko, joins from the north and the river turns south-east to Hanceville, the valley deepening rapidly until it is 1,800 feet below the plateau-level, and at the junction with Fraser River, after being joined by Big Creek, it is 2,220 feet below.

From Hanceville westward are a number of ranchers, nearly all old-timers who took up river-bottom and bench wherever they could find water for irrigation, and raise hay, grain, and vegetables on the low land for their own use and utilize the higher plateau for grazing cattle—the main source of revenue. This is a notable stock-raising district. Between Hanceville and Alexis Creek the Anahim Indians have large reservations and run considerable stock, utilizing some outlying meadows for hay. West of Alexis Creek to vicinity of Redstone the available bottom and bench is occupied by ranchers, who range stock on the grassy side-hills and upland and use outlying meadows—a road being made from Siwash Bridge 23 miles south to some meadows. Stock-raising is the chief occupation of settlers throughout the district. The upland, in general, is too high for successful cultivation of crops, though in many depressions it holds meadows and swamps growing wild hay. Farming, wherever carried on, is confined to valley-bottom and benches, and is mainly confined to providing foddors used in conjunction with hay cut on the meadows for winter feed, and in places some grains and vegetables are grown.

CHILKO RIVER BASIN

Chilko Lake, in which Chilko River heads, is at 3,880 feet, amongst outlying spurs of the Coast Range, with Potato Mountains dominated by Mount

Tullin, raising 3,000 feet above the lake, dividing it from Tatlayoko Lake, which empties to Homathko River, draining to Bute Inlet. Chilko Lake also has a narrow mountain divide from headwaters of Southgate River and a tunnel diversion from Chilko Lake would afford a vast water power. Trails, available in summer, used by prospectors working in this region, reach vicinity of Chilko Lake from Bridge River over the mountain passes, and trails from Hanceville and Big Creek to Nemiah Valley traverse the plateau, also a trail follows Chilko Valley from the Chilcotin. East of Chilko Lake is Nemiah Valley, 2 to 4 miles wide, 16 miles long, the bottom containing some good hay meadows capable of growing hay, oats, and large areas of adjoining high land offer summer range where wild horses graze out, but which could become good sheep or cattle pasture. The valley is at 4,000 feet, but winters are neither long nor extremely cold. Chilko Lake seldom freezes and winds from the Coast temper the cold and melt the snow, which rarely lies as deep as 2 feet. Horses rustle out all winter but are poor in spring. Cattle rarely require as much as a ton of hay per head for winter feed. Conni Lake, at east end of the valley, drains through Artee Lake to Chilko Lake. Several other valleys—the Westwater, Yohetta, and another—parallel Nemiah Valley to the north. In Yohetta Valley, which strikes Chilko Lake opposite Franklyn Arm, some bands of horses are ranged by Indians. At eastern end is some bunch-grass, but the western part is thickly wooded, suggesting transition from the Interior climate to that of the Coast. The greater part of Chilko Lake has mountainous sides.

Between Nemiah Lake and Tsuniah Lake, occupying a cleft in the mountains east of Chilko Lake, are mountains through which headwaters of Klokon River flow in a series of chasms. At north-east of Tsuniah Lake an opening has several hundred acres growing scanty grass, north of which are several good meadows. Brittany Creek rises in mountains north of Nemiah Valley, east of Tsuniah Lake, and flows north to Chilko River. Several meadows, at 3,800 to 4,200 feet, in the valley would grow hay, some requiring clearing. The country generally is covered with pine, with occasional spruce and poplar in bottoms. On southern slopes timber is open, with much grass and vetch, and extensive openings with bunch-grass and some grassy swamps which dry in summer. Much of the country is level or undulating, but too high for agriculture. Near Chilko River, between Chilko

Lake and Brittany Creek, is a fair strip of pasture, and some range is also found on the opposite side utilizable for cattle-raising combined with some hay meadows. A rough wagon-road built by Indians from Chilcotin Road east of Redstone reaches Chilko River to south of Brittany Creek, and a trail follows the north side of the river, which at moderate water can be forded in two or three places between Chilko Lake and Brittany Creek.

East of Chilko River, on northern flank of the Potato Mountains, is Choelquoit Lake, 3,850 feet, with extensive bunch-grass slopes to the north. Below Brittany Creek the Chilko River, at about 3,500 feet, flows between high gravelly banks, with high open-timbered country adjoining. On the north side are some bunch-grass benches followed by the trail. Near Bidwell Creek, a small stream, country to the north is well covered with pine and to south burnt over and destitute of vegetation, the topography being mostly high rolling plateau with slope to the Chilko. Near junction of Taseko River and lower down some hay meadows used by settlers in Chilcotin Valley have been surveyed.

Taseko River heads in glaciers west of Taylor Pass in the mountain divide from Bridge River drainage and 7 miles down is joined by Denain Creek, flowing from Warner Glacier. The valleys are high, above timber-line, and have only scattered jack-pine and spruce in open grassland, with feed available only for a short time. From Denain Creek the Taseko falls rapidly and is joined by Battlement Creek, about a mile up which some prospects with high gold values were located a few years ago, causing excitement, resulting in much of the surrounding area being staked. From Battlement Creek to Taseko Lakes iron-stains outcrop and some extensive deposits of limonite iron have been located on the river and tributaries. The Taseko falls swift, with numerous rapids and short canyons, to Taseko Lakes, adjoining country being rough and hilly, timbered with jack-pine and spruce, with a few small and swampy flats in depressions.

Taseko Lakes fill a narrow valley between fairly low mountains. Lord and Tchaikazan Rivers and Lastman Lake drain to them. The lakes are joined by a narrow channel fordable only at low water. Lord River has a narrow swampy valley with two small mountain-confined lakes. It heads in a divide 4 to 5 miles from head of Bridge River. Tchaikazan River flows swiftly through a gap in the Coast Range in narrow valley, receiving a large stream in similar valley draining from Fishem Lake

before entering South Taseko Lake. The Taseko Trail touches south end of the lake and swings off around a steep rocky ridge at the lower end, at foot of which ridge, 2 miles from the lake crossing, is a meadow flat of about 300 acres, from which a trail leading up to west of Taseko Mountain through a high pass descends to a valley branch of Big Creek. From Taseko Crossing the trail leaves the lake to climb along east side of the valley to Fishem Lake, crossing at the northern end and following north side of Tuzcha Lake.

Yohetta Creek drains a valley from the west, with several small lakes draining to Fishem Lake. From Tuzcha Lake the trail crosses a low divide, with one branch running north-east over the east shoulder of Mount Tatlow and descending into Nemiah Valley, the other following west of Lastman Lake to the outlet of North Taseko Lake, where it crosses to the east side and follows the Taseko and Chilko Rivers to Chilcotin Valley.

The valley containing Lastman, Tuzcha, and Fishem Lakes has a high rocky ridge bordering the east side, and on the west the country rises gently to mountains forming the divide between Chilko Lake. Some stretches of fairly open meadow and good grazing in timber is found on these slopes.

From North Taseko Lake the river is swift, with stretches of broken water and some large canyons. Banks are generally high and steep, with series of benches rising from them, with timber open enough for good grazing. Two trails to Nemiah Valley lead up through low valleys west of the river. On the east side trails ascend over several low timbered ridges and across rolling plateau to Big Creek. This stretch, between the Taseko and Big Creek drainages, about 25 miles wide, is, for most part, high plateau, 5,000 to 6,000 feet, with numerous meadows and large stretches of fairly open country which could supply summer range for many cattle or sheep.

Tête Angela Creek drains from the plateau westward to Taseko River, and near its head are Tretheway Meadows, to which a road has been built by settlers from head of Big Creek over timbered hilly country, with some meadows in depressions, some large—about 2,000 acres of open land is traversed by the road. Some good meadows adjoin Tête Angela Creek, the central part being mostly peat-swamp with patches of good land, and a lake at the east has some good meadow adjoining. Fish Lake drains into small lakes at north of the Tretheway Meadows, with outlet to Tête Angela Creek. Land hereabout is about 4,000 feet, to

north-west falling to Taseko River, and is timbered with jack-pine and poplar, with some large open spaces. It is purely a stock-ranging country, being too high for grain to ripen.

CHILANKO RIVER AND TATLA LAKE

Chilanko River heads on the plateau divide from headwaters of Dean River and flows west in narrow valley little below the general surface, with small lakes and scattered meadows adjoining, the valley gradually deepening to Chilanko Forks, where the outlet of Tatla Lake joins. Some ranches and small cattle-raising settlement are located at Chilanko Forks on the road from Williams Lake reaching to Tatla Lake. From Chilanko River a triangular area of rolling plateau extends south-west with apex on the river and base flanking the Coast Range, the northern and southern sides being more or less defined by low hills. This area contains two parallel depressions, one holding Tatla and Long Lakes, another south of this, not so uniform in character, containing LeBlanc, Loon, and other lakes. Tatla Lake, 2,980 feet, long and river-like, is bordered by rather steep drift-banks 80 to 100 feet high, above which the ground rises gently to the plateau. An alluvial swampy flat has partly filled in the west end for several miles, on which, together with some flat tracts near other parts of the lake, oats, timothy, and rye grow well. The north side, fairly open, grows good bunch-grass. Considerable cattle are raised hereabout. Tatla Lake Post-office, at the west end, is on an old ranch established in 1896. The country is essentially a stock-raising area, but some good potatoes and vegetables have been grown adjoining Tatla Lake. The southerly side is wooded, and the undulating plateau stretching southward is sandy, timbered with jack-pine. Surrounding Peterson Lake and stretching westward is a tract of fairly flat land, part grassy, part growing jack-pine. Sandy ridges covered with jack-pine south of Peterson Lake form a divide to headwaters of the West Fork of Homathko River, which has several lakes along its course on the plateau, whence it cuts through the Coast Range in a mountain-confined timbered valley to Bute Inlet.

North of Tatla and Long Lakes to Chilanko River is undulating plateau with sandy ridges growing jack-pine and occasional small lakes, swamps, and meadows in the depressions. Altitude of the divide is about 3,500 feet. Similar country extends west to One Eye Lake, altitude 2,760 feet,

and McClinchy Creek, from which Klinaklini River drains south and cuts through the Coast Range to empty into Knight Inlet. There is some settlement near One Eye Lake engaged in stock-raising. Land has to be cleared to grow winter feed, but clearing is light. There are a number of meadows at altitudes from 3,000 to 3,500 feet.

South-east of Tatla Lake are Buckthorn Lakes in depressions without apparent outlet, and to north-east are LeBlanc and Loon Lakes in similar depressions, with abruptly sloping drift-banks in irregular mounds. The plateau hereabout is irregular in contour, with numerous ridges and mounds, many transverse to general direction of the valleys. The rise is southerly to about 4,500 feet, with many ridges with gradual slopes and intervening depressions to a divide from which the slope is toward Choelquoit Lake.

PUNTZI LAKE DISTRICT

From the road following Chilanko River a road northward reaches Chezacut via Puntzi Lake, crossing undulating and hilly plateau, with series of jack-pine ridges with general east-west trend and occasional transverse mounds. The road skirts west side of Puntzi Lake, 3,186 feet, with abrupt slopes of the plateau, limited bunch-grass areas occurring on southern slopes. The lake, which drains east to the Chilcotin, has a valley running north-easterly about 10 miles to a large plateau, fairly level, running back to Atchi Mountains. Low jack-pine ridges divide numerous creeks which flow from the foot-hills and eventually drain to Chilcotin River. Along these creeks are good hay meadows where Redstone Indians have cut hay for many years. The plateau, at 3,500 feet, is valueless except for its hay meadows. The country is honeycombed with Indian-built wagon-roads. All meadows are connected and roads have been built down creeks to Chezacut and Puntzi Lakes. Another wagon-road connects Chezacut and Puntzi Lakes and runs to the main road near Redstone Indian Reserve. A rancher lives on Lot 261 near head of Puntzi Creek. Many cattle are grazed on flats in this district, mostly Indian-owned, though some are owned by white men. The difficulty of cattle-raising in this region is that the country is so large that it often takes some days to locate the beef when required. South of Puntzi Lake is a depression paralleling Chilanko Valley. North and east of Puntzi Lake is undulating and hilly country, with Mount Palmer reaching 4,346 feet.

NORTH OF CHEZACUT

Chezacut is post-office for a small ranching community near junction of Clusko and Chilcotin Rivers, reached by a branch of the Chilcotin Road from Williams Lake. Cattle are raised, utilizing meadows in Chilcotin and Clinchintampan Valleys, up which a road connects with the Alexis Creek-Nazko Valleys on the divide between them. The Clinchintampan Valley, about 7 miles long, averaging 1½ miles wide, has a large stretch of meadow, formerly covered with brush, now largely cleared and growing good hay. The plateau above the rivers is hilly, with jack-pine ridges, and depressions containing some meadows. The Clusko Valley is narrow and much broken and surrounding country is high plateau broken by jack-pine ridges and low hills, with much windfall and muskegs in depressions. General altitude is about 4,000 feet. Hilly country separates the upper part of the Clusko from the Clisbako, which drains to Nazko River.

The Clisbako is in a narrow valley, with steep broken slopes to the high plateau. Some surveys have been made near Deepdown Lake, draining to the lower part near the Alexis Creek-Nazko Road. This area is drained by a small creek tributary of the Clisbako in a large flat almost surrounded by hills. The area is timbered with jack-pine and poplar, interspersed with small meadows, muskegs and lakes. A settler produced hay on some muskegs that had been drained and burnt. General altitude is about 3,500 feet and frosts too severe for growing grain or vegetables. The area is, however, suitable for raising stock. The meadow is limited and in scattered patches.

The country north of Chezacut is mostly rolling high plateau, with the Clusko draining south to the Chilcotin, Clisbako to the Nazko and Coglistico, Baezaeko and Euchiniko to the Blackwater. General conformation is a series of rounded broken ridges forming watersheds of the rivers, which are at 2,800 to 3,500 feet, with very gradual ascent, with series of ridges and intervening depressions to divides at from 4,500 to 4,700 feet. The rivers are mostly in narrow valleys, draining many small lakes. Few meadows are found on the main streams, but abound on tributaries, and many meadows are scattered amongst jack-pine in depressions between the ridges. Muskegs are numerous, but usually cover small area. Much of the upland is covered with jack-pine, areas of which have been burnt and dense young growth is coming up through the windfall. The whole country is covered with glacial drift and slopes eastward.

The ridges are gravelly or sandy loam, with stones and boulders in places. Where fires have occurred, soil has been burnt off and sand and gravel exposed. In a few places there is much surface soil and subsoil is hard and compact. Where depressions occur, erosions of surrounding slopes have covered the underlying boulders with thin coating of good soil, usually growing grass, this appearing to be the origin of most of the high meadows. Where depressions are deep, lakes have been formed, many shallow without outlet or inlet and are gradually drying. Valleys, usually narrow, have some good bottom land, mostly silt producing abundant wild hay, crops of which could be increased with irrigation.

The lower portions of the Baezaeko, Coglistico, and Euchiniko Valleys are dealt with, also the Alexis Creek and Nazko basins, in the pamphlet dealing with the Cariboo Land Recording Division.

TATLAYOKO LAKE AND HOMATHKO RIVER

Divided from Tatla Lake by undulating plateau, with jack-pine growing on the ridges, is Eagle Lake, from which a creek drains north to Tatla Lake. This lake has high banks and steep drift-slopes, especially on the south side, and the south-west end lies between rocky hills, spurs forming rock-masses in parts. South-west and south the plateau undulates, broken in places, with sandy jack-pine ridges, with intervening hollows and depressions, marshy in places, forming a divide south of which Cochin and other lakes drain to the upper part of the East Branch of Homathko River, which flows through Tatlayoko Lake. A little grazing land is found in the valley for about 9 miles to Tatlayoko Lake, altitude 2,739 feet.

The land on the east side of Tatlayoko Lake for about 10 miles from the north end consists of level benches containing some good land fit for agriculture, which can be irrigated from numerous small streams running into the lake. The land is covered with scattered fir, poplar, balsam, and jack-pine. From the lake-shore to the foot of the mountains, about 3 miles distant, is excellent summer grazing, and a plateau extends from the summit to Chilko Lake, also affording good summer grazing. The west side of the lake is rocky, the mountains coming down close to the lake. A fair wagon-road extends to the head of the lake from Tatla Lake and a trail runs to the foot.

The West Branch of the Homathko heads in small lakes on the low rolling divide, three streams merging in Bluff Lake, at altitude of over 2,900

feet. From Tatla Lake to the head of Bluff Lake the country is rolling, covered mostly with jack-pine and poplar, and numerous small lakes abound. The land, as a rule, is unfit for agriculture, but affords excellent grazing, peavine growing abundantly. From the head of Bluff Lake and the end of a rough wagon-road from Tatla Lake a trail crosses a ridge about 500 feet above the level of the lake in order to avoid bluffs along the shore. The valley below Bluff Lake is about 10 miles wide. About a quarter of a mile of bottom land on either side is fit for agriculture and is covered mostly with willow, poplar, and jack-pine. The balance of the valley slopes gently up to the mountains and affords fine summer grazing for stock. It is covered with scattered fir, jack-pine, and balsam. Two settlers live in this part of the valley. The West Branch of the Homathko is swift-flowing, about 120 feet wide.

Middle Lake, 9 miles below Bluff Lake, about 3 miles long, is at altitude of 2,830 feet. The valley is similar for 9 miles to Twist Lake, the side-hills being steeper and rock-slides frequent. Below this lake, for 30 miles to where the East Branch joins, the stream is in a series of canyons, cliff-like hills rising from the water and glacial streams falling in from the mountains. The East Branch, leaving Tatlayoko Lake, cuts south-westerly through the mountains in a narrow valley, with many rock-slides and glacial tributaries on either side of the forks. The lower portion of the river is dealt with in the pamphlet describing the British Columbia Coast, Toba Inlet to Bute Inlet.

For 12 miles above Bute Inlet Homathko Valley contains some fair agricultural land on the west side, 200 yards to three-quarters of a mile wide, the soil being silt-deposit covered with humus 2 to 8 inches deep. Part of this area, about 800 acres, which is logged off, has grown up with alder and willow. About 8 miles from tide-water is an open meadow about 100 acres in extent with silty soil covered with black loam. The river is navigable at most stages for canoes and gasoline-boats, but dangerous at high water. The remainder of the valley containing agricultural soil is heavily timbered. About 1,200 acres of similar soil lies south of Cedar Creek, but this country is more broken up and also carries a heavy growth of timber. The mountains bordering the valley closely are rough and sheer and rock-slides occur in places. Timber is estimated at 500,000,000 feet, covered by timber licence. Agricultural land is estimated at 6,260 acres, of which 2,655 acres reaches from near tide-

water to a mile north of Beaver Creek and 1,764 acres adjoining and south of Cedar Creek. The remaining area is scattered as far north as a mile south of Waddington Canyon in parcels of 224, 228, 787, and 448 acres. Nearly all this land is heavily timbered, except the area on the west bank near tide-water, which has been logged, and clearing would be heavy and expensive. Soil formation is silt sediment covered with humus. Close to the side-hills the loam covering is from 4 to 10 inches deep. The greater contained areas are not very liable to flood, being about 3 feet above high-water mark. Bute Inlet is not extensively fished, but Knight Inlet to the north is the scene of considerable activity. There is a cannery at Glendale Cove, 25 miles from the head.

KLINAKLINI RIVER

Klinaklini River heads at the eastern flank of the Coast Range and flows north-east to the plateau ridge which forms the divide between the Tatla Lake drainage, where it turns north-west on One Eye Lake, 2,760 feet, and thence winds south-westerly about 60 miles to Knight Inlet. It is about 100 feet wide on leaving One Eye Lake and drops 514 feet in 11½ miles. McClinchy Creek, on which some good flats are found, enters from the north-west three-quarters of a mile below the lake. The head of canoe navigation is about 24 miles below. A number of haematite-iron claims are being developed on Perkins Mountain, at the head of Chromium Creek, one of the tributaries.

The Klinaklini is a fast glacial stream with a valley $\frac{3}{4}$ to $1\frac{1}{4}$ miles wide, the bottom being split by various channels into which the river splits. In the mountains about 16 miles above tide-water a glacier fills a large valley, and much of the flow below this comes from this source, the water flowing over a great triangular gravel-bar about $1\frac{1}{2}$ miles wide at the base at the river, the apex terminating in the glacier about 2 miles distant. About 14 miles above the mouth is a box canyon with walls 250 to 500 feet high and 80 to 100 feet wide. The mountains flank the valley closely, becoming very steep about 19 miles up. The bottom is cut up badly by the ever-changing course of the river, which practically flows from hillside to hillside, cutting up the bottom into numerous islands. Several mountain lakes parallel the river on the east and empty into it by fast winding mountain creeks, offering power-development opportunities. Salmon-fishing is carried on in Knight Inlet, fish being put up at the cannery at Glendale Cove, 25

miles from the head. Salmon run up the Klinaklini, evidently reaching the lakes, and get up the canyon to their spawning-grounds. Bear and other fur-bearing animals are trapped and game is plentiful.

DEAN RIVER

Dean River heads on the plateau upland and flows in a wide shallow valley, not over 20 feet below the general surface, with slopes rising gently on either side, stretching in undulating low ridges for about 30 miles eastward, and on the west to a low watershed at 3,750 feet forming the divide between Dean and Bella Coola drainages, and McClinchy Creek, draining to the Klinaklini. Anahim Lake, about 3,460 feet, is a few feet below the surrounding plateau, with low sloping banks and large open swamp meadows to the north-west, and tracts of burnt-over country encumbered with windfall, with rocky surface, to the south. Abuntlet Lake, 3,440 feet, has large open meadows growing wild hay on the north side, beyond which the country rises, gently undulating, toward Ilgachuz Mountains. In vicinity of these lakes are many wild-hay meadows, some large, with dark loam soil, the general soils on the plateau being light and sandy, the greater portion growing jack-pine. Light sandy loam with boulders protruding in places is found in Dean Valley. An Indian near Abuntlet Lake winters about 200 horses on the adjacent range. Dean River, here about 120 feet wide, flows northward in a shallow depression of the plateau between Ilgachuz and Tsitsutl Mountains, in which Anahim Peak rises solitarily west of the river and swings around the northern flank of the latter range. Sigutlat River drains several lakes to the north, the lowest at 2,600 feet, in a trough-shaped valley 300 feet below the surface, with some narrow terraces at varying heights to the Dean, with waterfalls in a chasm a mile above the junction. Six miles below the Sigutlat the Dean falls about 80 feet in several steps and cuts across the Coast Range in a steep narrow valley, in places a canyon, flanked closely by mountains, falling about 2,500 feet in the 45 miles of its course to Dean Channel at Kimsquit. A trail follows up to Dean from Kimsquit.

BELLA COOLA RIVER

Bella Coola Valley, 3 miles wide at the lower end, narrowing to half a mile 40 miles up, with steep flanking mountains, cross-sections the Coast Range from the head of the North Bentinck Arm of Burke Channel. The town of Bella Coola, a

regular port of call for coasting steamers, with hotel, school, stores, post-office, wharf, etc., is at the river-mouth. A wagon-road extends 35 miles up the valley. There are settlements, stores, and post-offices at Hagensborg, 12 miles up; Sloan, centre of the former Adventist colony, 30 miles up; and Atnarko, 45 miles up. The valley has been settled for twenty-five years. Settlers include many Norwegians, who established a colony in the valley many years ago. The valley is covered with large Douglas fir and clearing is heavy. Small patches are cleared, the largest about 20 acres. The land is very fertile, mostly with sandy loam soil. Potatoes, vegetables, garden-truck, fruit-trees, and flowers grow splendidly. Ocean Falls takes considerable produce grown in the valley. A number of settlers engage in fishing each season. Climate is agreeable. Rainfall is about 30 inches a year. Winters are mild, zero weather being the exception.

The Bella Coola Trail follows to the forks, where the Hotnarko and Atnarko join to form the Bella Coola, and connects via the former with the road following the Telegraph Trail to Anahim Lake and up the Dean, connecting via Tatla Lake with Chilcotin District. Hotnarko River heads on jack-pine ridges at 3,650 feet, forming a low divide between this stream and Anahim Lake and Dean River. The upper part flows little below the surrounding undulating plateau; the lower part cuts through the mountains which flank it close, canyon-like in places. Atnarko River drains from Charlotte and Turner Lakes on the plateau at an altitude of about 3,700 feet. North of Charlotte Lake is high undulating plateau with sandy jack-pine ridges. At the south are meadows aggregating about 1,000 acres, behind which hilly country rises toward the Coast Range. Atnarko River leaves Charlotte Lake in a canyon below the adjoining meadows, tumbling in falls and rapids with steep mountain-sides for 2 miles. Then the valley widens to about 1½ miles for 2½ miles, with low-lying muskegs reaching to the bordering mountains, and thence for 9 miles the mountains close in, contracting the river to width of 150 feet. At the junction of the South Fork the valley widens to three-quarters of a mile and has about 200 acres of bottom land. Three miles below is a wider stretch of timbered bottom land with black loam soil a mile long, and below this the river expands into a lake flanked with rocky hills. Then for 3 miles the river is confined by rocky timbered mountains and falls in series of rapids, below which is a flat occupied by pre-emptors who grow good garden-truck. The valley then closes in again

and has scattered patches of bottom land, mostly stony, in the 2½ miles to the junction with the Hotnarko.

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